



CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

November 15, 2001

H.R. 2983 **Price-Anderson Reauthorization Act of 2001**

*As ordered reported by the House Committee on Energy and Commerce
on October 31, 2001*

SUMMARY

H.R. 2983 would make several changes to laws governing nuclear facilities. Specifically, the bill would reauthorize the Price-Anderson Act through August 1, 2017. That act provides a framework for liability coverage in the event of a nuclear accident. H.R. 2983 also would require the Department of Energy (DOE) to apply health and safety standards that are substantially similar to those imposed by the Occupational Health and Safety Administration (OSHA) at the nuclear facilities it operates. In addition, H.R. 2983 would require the Nuclear Regulatory Commission (NRC) to issue rules relating to enhanced security at nuclear facilities and the transportation of nuclear materials. Last, the bill would establish new civil penalties for noncompliance with health and safety standards and repeal the exemption from paying civil penalties for noncompliance with the Price-Anderson Act by nonprofit DOE contractors.

CBO estimates that the reauthorization of the Price-Anderson Act would have no effect on the federal budget, primarily because any payments by the federal government in connection with a nuclear accident would require additional legislation (i.e., Price-Anderson does not automatically trigger any such potential payments).

Assuming the availability of appropriated funds, we estimate that implementing H.R. 2983 would cost \$3 million over the 2002-2006 period, for new health and safety regulations and inspectors at DOE. Because the NRC is authorized to offset its costs through fees, the net budgetary effects for studies relating to the strengthening security requirements at nuclear facilities and for transportation of nuclear materials would be negligible.

Finally, the bill could result in an increase in governmental receipts if additional civil penalties are collected, so pay-as-you-go procedures would apply to H.R. 2983. CBO estimates, however, that any increase in receipts would be less than \$500,000 a year.

H.R. 2983 would impose both intergovernmental and private-sector mandates as defined by the Unfunded Mandates Reform Act (UMRA). The bill would increase the cost of existing mandates on NRC licensees by increasing the total and annual retrospective premium that can be assessed under the Price Anderson Act in the event of a nuclear accident. In addition, the bill would authorize the NRC to issue new security regulations for transporting nuclear materials and for operating nuclear facilities.

CBO estimates that the cost of complying with the intergovernmental mandates in the bill would be unlikely to exceed the threshold as defined in UMRA (\$56 million in 2001, adjusted annually for inflation). The bill would impose no other costs on state, local, or tribal governments.

The cost to comply with the private-sector mandates imposed by the bill would depend in large part on future actions of the NRC regarding the operation of nuclear facilities. As a result, CBO cannot determine whether the aggregate direct costs to privately owned nuclear facilities of complying with all of the mandates in the bill would exceed the annual threshold specified by UMRA (\$113 million in 2001, adjusted annually for inflation).

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary impact of H.R. 2983 is shown in the following table. The costs of this legislation fall within budget functions 270 (energy) and 050 (defense).

BASIS OF ESTIMATE

For this estimate, CBO assumes that H.R. 2983 will be enacted in 2001, and that amounts estimated to be authorized by the bill will be appropriated each year.

Price-Anderson Act Reauthorization

H.R. 2983 would reauthorize the Price-Anderson Act through August 1, 2017. That act provides a framework for the structure of liability coverage in the event of a nuclear accident. CBO estimates that its reauthorization would have no effect on the budget. If damages resulting from a nuclear accident exceed the liability coverage established by the Price-Anderson Act (roughly \$10 billion under H.R. 2983), the Act requires that the Congress determine how remaining damages would be paid. Options could include additional assessments on the nuclear industry or federal appropriations. These Price Anderson Act provisions apply to both NRC licensees and DOE contractors working at nuclear facilities.

	By Fiscal Year, in Million of Dollars				
	2002	2003	2004	2005	2006
CHANGES IN SPENDING SUBJECT TO APPROPRIATION ^b					
Gross NRC Spending					
Estimate Authorization Level	10	0	0	0	0
Estimated Outlays	7	3	0	0	0
NRC Offsetting Collections					
Estimated Authorization Level	-10	0	0	0	0
Estimated Outlays	-10	0	0	0	0
DOE Spending for Health and Safety					
Estimated Authorization Level	1	a	a	a	a
Estimated Outlays	1	a	a	a	a
Net Changes Under H.R. 2983					
Estimated Authorization Level	1	a	a	a	a
Estimated Outlays	-2	3	a	a	a

a. Spending of less than \$500,000.

b. Enacting H.R. 2983 could also affect revenues, but by less than \$550,000 a year.

The bill would change the level of indemnification for DOE contractors to \$10 billion from slightly more than \$9 billion in current law. Because DOE reimburses its contractors for property damage and third-party liability claims, this increase to DOE contractor indemnification would not be likely to change any obligations of the federal government to pay claims related to accidents at its facilities. Over the past 13 years, DOE has paid \$108 million in claims related to nuclear accidents at its facilities. Those claims arose from DOE activities that occurred starting in the 1950s.

Spending Subject to Appropriation

H.R. 2983 would require the NRC to study and issue rules relating to nuclear security, and require DOE to apply health and safety standards similar to those imposed by OSHA to the nuclear facilities it operates. CBO estimates that such changes would cost \$3 million over the 2002-2006 period, assuming appropriation of the necessary amounts. Additional significant costs could result from applying new health and safety standards at DOE facilities, but the cost to implement projects to correct health and safety problems at DOE facilities could also be incurred under current law.

Nuclear Security. H.R. 2983 would require the NRC to conduct a study of the vulnerability of its licensed nuclear facilities to certain threats, and report to the Congress. According to the NRC, the study would require testing the reaction of materials used at nuclear facilities to several types of destructive forces. Based on information from the NRC, CBO estimates that such studies would cost \$7 million over the 2002-2003 period.

The bill also would require a rulemaking to update the design basis threat (DBT)—the attack scenario that nuclear facilities must be capable of defeating. Based on information from the NRC, CBO estimates that updating the DBT rule to meet the new scenarios outlined in the bill would cost \$3 million over the 2002-2003 period. The bill also would require an additional rulemaking to enhance the security of nuclear materials being transported, but based on information from the NRC, CBO expects this effort would not have a significant cost.

Because the NRC has the authority to collect annual charges from its licensees to offset 96 percent of its general fund appropriation in 2002, the net cost of these provisions would be less than \$500,000.

Health and Safety Rules at DOE Nuclear Facilities. H.R. 2983 would require DOE to issue industrial health and safety regulations that are substantially similar to those required by OSHA and apply those standards to DOE nuclear facilities. Enforcement and inspections of these new standards would be conducted by the Office of Enforcement and Investigation within DOE. Based on information from DOE, we estimate that such a change would cost \$3 million over the 2002-2006 period, for issuing new rules and hiring new inspectors.

Contractors at DOE facilities are required to meet DOE's own health and safety standards, many of which are similar to OSHA standards. According to DOE, however, changing standards may require changes in training protocol, a difference in emphasis on types of safety concerns, and physical modifications to facilities. Because DOE contractors would be able to charge DOE for changes in procedures, any additional costs because of the new regulations would be paid by the federal government, subject to the availability of appropriations.

According to DOE, about 30 of its facilities would be affected by a change in standards. Many DOE facilities do not fully comply with the department's current health and safety standards. In most cases corrective actions have not been taken because sufficient funds have not been allocated to these projects. Changing standards is not likely to significantly change the overall need for health and safety upgrades in many DOE facilities.

Revenues

Enacting H.R. 2983 could result in additional civil penalties for nuclear safety violations at certain DOE facilities and for violations of health and safety regulations that would be required under the bill. CBO estimates that additional penalties would be less than \$500,000 a year.

Penalties for Nuclear Safety Violations by Nonprofit Institutions. H.R. 2983 would repeal the exemption from civil penalties for nuclear safety violations that currently applies to nonprofit institutions operating laboratories for DOE. Under the bill, nonprofit institutions that are operating DOE laboratories would be subject to penalties. According to DOE's Office of Enforcement and Investigation, over the last four years, nonprofit contractors have been assessed \$1,843,625 in penalties. All of those penalties have been waived, in accordance with current law. Under H.R. 2983, any future penalties would be paid to the Treasury. Based on penalties that have been assessed in the past, CBO expects that any additional revenues that would be collected under the bill would be less than \$500,000 a year.

Penalties for Health and Safety Violations under the Price-Anderson Act. H.R. 2983 would impose civil penalties for noncompliance with the new health and safety standards that would be required under the bill. Such penalties would be required to be substantially similar to OSHA penalties. Based on information from DOE, CBO does not expect the agency would impose significant fines on its contractors, so any additional receipts would be negligible.

PAY-AS-YOU-GO CONSIDERATIONS

The Balanced Budget and Emergency Deficit Control Act sets up pay-as-you-go procedures for legislation affecting direct spending or receipts. CBO estimates that enacting H.R. 2983 would result in changes in governmental receipts of less than \$500,000 a year.

INTERGOVERNMENTAL AND PRIVATE-SECTOR IMPACT

H.R. 2983 would impose both intergovernmental and private-sector mandates as defined by UMRA. The bill would increase the cost of existing mandates on NRC licensees by increasing the total and annual retrospective premium that can be assessed in the event of a nuclear accident. In addition, the bill would authorize the NRC to issue new security regulations for transporting nuclear materials and for operating nuclear facilities.

CBO estimates that the cost of complying with the intergovernmental mandates in the bill would be unlikely to exceed the threshold as defined in UMRA (\$56 million in 2001, adjusted annually for inflation). The bill would impose no other costs on state, local, or tribal governments.

The cost to comply with the private-sector mandates imposed by the bill would depend in large part on future actions of the NRC regarding the operation of nuclear facilities. CBO therefore cannot determine whether the aggregate direct cost to privately owned nuclear facilities of complying with all of the mandates in the bill would exceed the annual threshold specified by UMRA (\$113 million in 2001, adjusted annually for inflation).

Increase in Retrospective Premium

Under current law, NRC licensees are required to obtain the maximum amount of private insurance available to cover losses in the event of a nuclear incident. If losses exceed the amount of private insurance, each licensee is assessed a charge, known as the retrospective premium, up to a maximum of \$84 million, to cover any shortfall in damage coverage. Charges are assessed in annual amounts until the entire premium is collected.

Section 3 of H.R. 2983 would increase the maximum retrospective premium from \$84 million to \$94 million, as well as increasing the maximum annual premium from \$10 million to \$15 million. CBO has determined that raising both the maximum total premium and the annual premium would increase the costs of an existing mandate and would thereby impose intergovernmental and private-sector mandates under UMRA.

Currently, two nuclear power facilities are wholly owned and operated by the state of Nebraska, and a few municipalities own a small percentage of other nuclear facilities. Because so few facilities are publicly owned (less than 5 percent) and because the probability of a nuclear accident resulting in losses exceeding the amount of private insurance coverage is so low, CBO estimates that the costs of complying with that mandate would not be significant over the next five years.

Based upon the low probability of a nuclear accident resulting in losses exceeding the amount of private insurance coverage, CBO estimates that the annual cost to the private sector also would not be substantial over the next five years.

Shipment of Nuclear Materials

Section 11 of the bill would direct the NRC to issue rules aimed at improving the security of nuclear material shipments. The rules would require federal background checks for individuals transporting nuclear materials, impose restrictions on where such shipments could travel, and require the shipper to carry a manifest detailing the contents. According to the NRC, only a small number of nuclear material shipments are made to and from each nuclear facility per year. Thus, CBO estimates that the costs of this mandate would not be significant.

Upgrading Security at Nuclear Facilities

Section 12 would require the NRC to issue new regulations addressing security threats at facilities licensed by the NRC. NRC's rulemaking would be based upon the results of a nine-month study of facility security and consultation with other federal, state, and local agencies. At this time, the agency could not give any indication as to the scope of the new regulations. Consequently, CBO cannot determine the costs of complying with the new regulations.

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